

# इंटरनेट

# मानक

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IS 3568 (1990): Round Nose Pliers [PGD 5: Assembly Hand Tools]



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भारतीय मानक

गोल अग्र भाग वाले प्लास — विशिष्ट  
( पहला पुनरीक्षण )

*Indian Standard*

ROUND NOSE PLIERS — SPECIFICATION  
( *First Revision* )

UDC 621.881.4

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**BUREAU OF INDIAN STANDARDS**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

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**Price Group 2**

## FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards on 5 June 1990, after the draft finalized by the Assembly Hand Tools Sectional Committee had been approved by the Production Engineering Division Council.

These types of pliers are generally used for holding and gripping of items in situations where it is inconvenient or impossible to use hands. These pliers are made in many styles. General types, which are used in abundance have been covered in this standard.

This standard was first issued in 1966. This revision has been taken up in order to align the specification with the work done at the international level as well as to give the references of revised latest standards.

Load test and torsion tests have also been modified. The hardness values have been aligned with that of other pliers.

Nominal sizes 150, 175 and 200 are quite popular and being used in the country. Though these sizes have not been covered in ISO standard ( ISO covers 140, 160 and 180 mm pliers ), but based on their demand, these have been included in this standard.

While formulating this standard, considerable assistance has also been taken from ISO 5745 : 1982 Pliers and nippers — Pliers for gripping and manipulating — Dimensions, issued by the International Organization for Standardization ( ISO ).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values ( revised )'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

## ROUND NOSE PLIERS — SPECIFICATION

( First Revision )

### 1 SCOPE

1.1 This standard covers the dimensions and other requirements for the round nose pliers.

### 2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard:

IS No.	Title
2615 : 1989	Technical supply conditions for pliers, pincers and nippers ( <i>second revision</i> )
11526 : 1986	Nomenclature for pliers, pincers and nippers

### 3 TYPES

Type A — Round, short nose pliers; and

Type B — Round, long nose pliers.

### 4 NOMENCLATURE

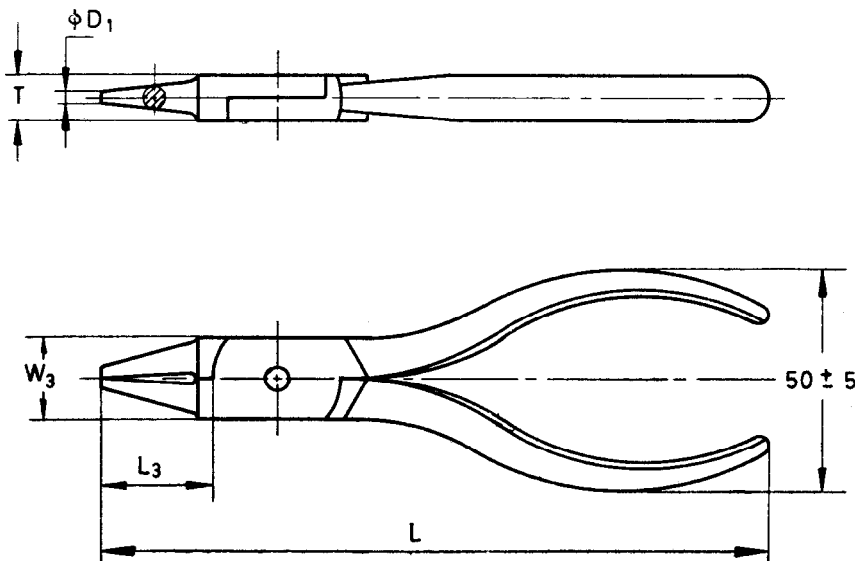
4.1 For the purpose of this standard, the nomenclature as given in IS 11526 : 1986 shall apply.

### 5 DIMENSIONS

5.1 The dimensions of the both types of round nose pliers ( short as well as long ) shall be as given in Tables 1 and 2 respectively.

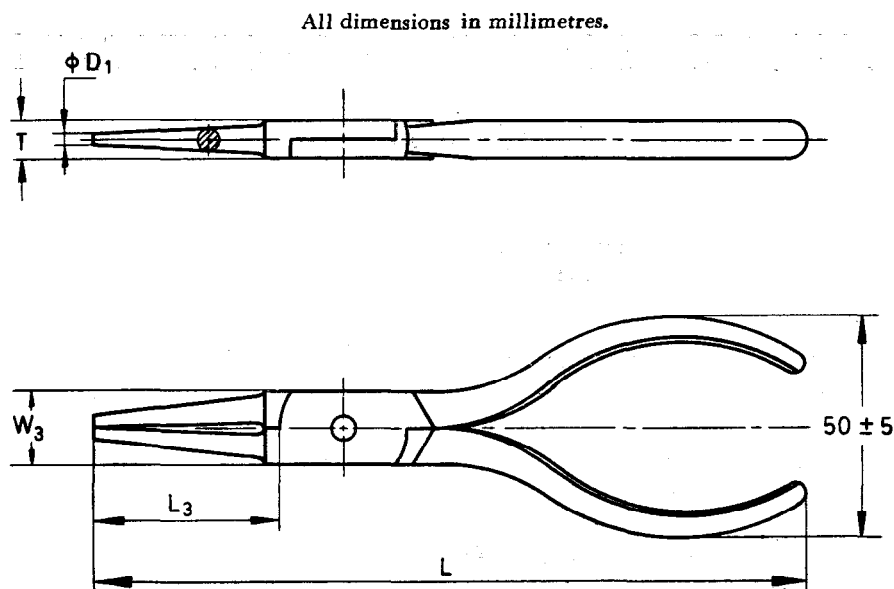
**Table 1 Dimensions for Round, Short Nose Pliers**

All dimensions in millimetres.



Nominal Size	L	Tolerance on L	$D_1$ Max	$L_3$	Tolerance on $L_3$	T Max	$W_3$ Max
100	100	$\pm 6$	1.0	16	0 -3	6	14
125	125	$\pm 6$	1.5	20	0 -5	8	16
150	150	$\pm 7$	2.0	25	0 -6	10	18
175	175	$\pm 8$	2.5	30	0 -6	10	20
200	200	$\pm 8$	3.2	37	+0 -8	12	22

Table 2 Dimensions for Round, Long Nose Pliers



Nominal Size	L	Tolerance on L	D <sub>1</sub> Max	L <sub>3</sub>	Tolerance on L <sub>3</sub>	T Max	W <sub>3</sub> Max
100	100	±6	1.5	28	0 -3	6	12
125	125	±6	2.0	36	0 -5	6	14
150	150	±7	2.5	38	0 -6	11	16
160	160	±7	2.5	42	0 -6	11	16
(180)	180	±8	3.0	05	+0 -8	12	18

NOTE — Size shown in paranthesis ( ) is non-preferred.

## 6 HARDNESS

6.1 The hardness of jaw shall be in the range of 350 to 510 HV (≈ 35 to 50 HRC).

## 7 GENERAL REQUIREMENTS

7.1 The material, manufacture, workmanship and finish, tests, preservation and packing and sampling shall conform to IS 2615 : 1989.

## 8 TEST

In addition to tests specified in IS 2615 : 1989, the following tests shall also be carried out.

### 8.1 Bend Test

The pliers, when tested by bending 1.25 mm diameter hard-drawn steel wire, shall work satisfactorily and shall not show any sign of damage or distortion or indentation on the noses of the plier on completion of the test.

### 8.2 Torsion Test

The round nose pliers shall be tested for this requirement as per 9.4 of IS 2615 : 1989. The test torque to be employed shall be as indicated in Table 3.

### 8.3 Handle Load Test

The round nose pliers shall be tested for permanent set as given in 9.5 of IS 2615 : 1989. The load to be employed shall be as given in Table 3 and the permanent set shall not exceed the values given in Table 3.

## 9 DESIGNATION

9.1 The round nose pliers shall be designated by its commonly used name, nominal size and number of this standard.

Example :

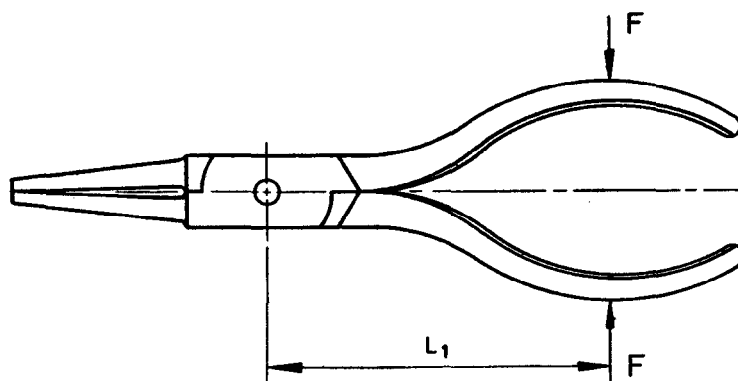
A round nose plier of nominal size 150 mm shall be designated as:

Round Short Nose Plier — IS 3568 — 150

## 10 MARKING

10.1 The pliers shall be clearly and legibly stamped with the nominal size indication of the source of manufacture. The year of manufacture may also be legibly marked if required by the purchaser.

**Table 3 Test Requirements for Round Nose Pliers**  
( Clauses 8.2 and 8.3 )



Nominal Size <i>L</i>	Torsion Test		Load Test	
	Torque	Twist $\alpha^\circ$ <i>Max</i>	Bending Moment ( $F \times L_1$ ) <sup>*</sup> Nm	Permanent Set <i>S</i> <sup>†</sup> mm
mm	Nm			
100	0.80	20°	22.5	1
125	1.35	20°	39.4	1
150	2.15	20°	50	1
160	2.35	20°	52	1
175	2.75	20°	60	1
( 180 )	2.9	20°	63	1
200	3.5	20°	75	1

NOTE — Nominal size shown in paranthesis ( ) is non-preferred.

<sup>\*</sup>For load application, see 9.5 of IS 2615 : 1989.

<sup>†</sup> $S = W_1 - W_0$  ( see IS 2615 : 1989 ).



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